

ABSTRACT

A receptacle device for protection against arc faults and leakage currents, including an arc fault test button, a leakage test button, and a reset button. Test resistors are arranged below the arc fault test button and the leakage test button wherein the test resistors are coupled to an electrical circuit board. The electrical circuit board includes an arc sampling resistor to detect arc faults and a leakage detection differential transformer to detect leakage currents. In order to provide good contacts between mobile and stationary electrical contacts of the receptacle device, a reset button bias member having mobile contact bridges at its two arms is provided. Each of the mobile contact bridges has three triangularly spaced electrical contacts, corresponding to stationary electrical contacts of flexible input fingers, output conductors and electrical output leads of the receptacle device. In order to balance the mobile contact bridges and provide better contacts, the receptacle device of the present invention can utilize a unique system of dual directional locks, i.e., below the reset button, there are two axially symmetrical directional locks provided within a reset button bias member of the receptacle device.

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